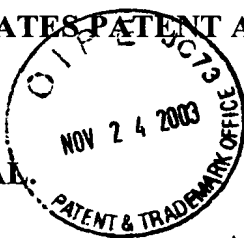


IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN THE APPLICATION OF:

WILLIAM J. BORLAND ET. AL.



CASE NO.: EL0513 US NA

APPLICATION NO.: 10/621,796

CONFIRMATION NO.: 1472

GROUP ART UNIT: 1775

EXAMINER:

FILED: JULY 17, 2003

FOR: **THIN FILM DIELECTRICS FOR CAPACITORS AND METHODS OF MAKING THEREOF****INFORMATION DISCLOSURE STATEMENT**

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Sir:

In compliance with 37 CFR 1.97 and 1.98, Applicants bring to the attention of the U.S. Patent and Trademark Office information listed on the enclosed PTO/SB/08. A copy of the information is also enclosed.

Should any fee be required in connection with the filing of this Information Disclosure Statement, please charge such fee to Deposit Account No. 04-1928 (E. I. du Pont de Nemours and Company).

Respectfully submitted,

A handwritten signature in cursive script, reading "Rebecca W. Tulloch".

REBECCA W. TULLOCH
ATTORNEY FOR APPLICANTS

Registration No.: 36,297

Telephone: (302) 892-7911

Facsimile: (302) 992-7343

Dated: 11/19/2003

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Sheet 1 of 5

Complete if Known

Application Number	10/621,796
Filing Date	July 17, 2003
First Named Inventor	William J. Borland
Art Unit	1775
Examiner Name	
Attorney Docket Number	EL0513 US NA

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
		US- 5,198,269	03-30-1993	Swartz et al.	
		US- 5,271,955	12-21-1993	Maniar	
		US- 5,342,648	08-03-1994	MacKenzie et al.	
		US- 5,384,294	01-24-1995	Teowee et al.	
		US- 5,391,393	02-21-1995	Maniar	
		US- 5,962,654	10-05-1999	Duncombe et al.	
		US- 6,337,032	01-08-2002	Chivukula et al.	
		US- 6,541,137	04-01-2003	Kingon et al.	
		US- 2002/0195612 A1	12-26-2002	Farrell	
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FOREIGN PATENT DOCUMENTS

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		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
		WO 01/67465 A2	09-13-2001	Energenius, Inc.		

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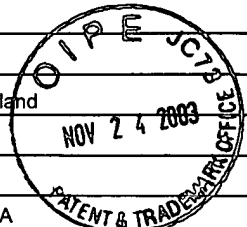
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				Application Number	10/621,796
				Filing Date	July 17, 2003
				First Named Inventor	William J. Borland
				Art Unit	1775
				Examiner Name	
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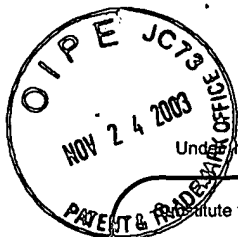
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		M. N. KAMALASAAN, N. D. KUMAR AND S. CHANDRA, Dielectric and ferroelectric properties of BaTiO ₃ thin films grown by the sol-gel process, J. Appl. Phys. 74 (9), 1 November 1983, pp 5679-86	<input type="checkbox"/>
		Q. ZOU, H. E. RUDA AND B. G. YACOBI, Dielectric properties of lead zirconate titanate thin films deposited on metal foils, Applied Physics Letters, Volume 77, Number 7, 14 August 2000, pp 1038-1040	<input type="checkbox"/>
		Q. ZOU, H. E. RUDA AND B. G. YACOBI, Improved dielectric properties of lead zirconate titanate thin films deposited on metal foils with LaNiO ₃ buffer layers, Applied Physics Letters, Volume 78, Number 9, 26 February 2001, pp 1282-1284	<input type="checkbox"/>
		W. J. LEE AND H. G. KIM, Microstructure dependence of electrical properties of (Ba _{0.5} Sr _{0.5})TiO ₃ thin films deposited on Pt/SiO ₂ /Si, J. Appl. Phys. 80 (10), 15 November 1996, pp 5891-5894	<input type="checkbox"/>
		M. H. FREY AND D. A. PAYNE, Nanocrystalline barium titanate: Evidence for the absence of ferroelectricity in sol-gel derived thin-layer capacitors, Appl. Phys. Lett. 63 (20), 15 November 1993, pp 2753-2755	<input type="checkbox"/>
		B. LEE AND J. ZHANG, Preparation, structure evolution and dielectric properties of BaTiO ₃ thin films and powders by an aqueous sol-gel process, Thin Solid Films 388 (2001) 1-7-113	<input type="checkbox"/>

Examiner Signature		Date Considered	
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				Art Unit	1775
				Examiner Name	
Sheet	3	of	5	Attorney Docket Number	EL0513 US NA

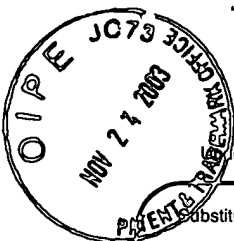
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		X. LI AND W. H. SHIH, Size Effects in Barium Titanate Particles and Clusters, J. Am. Comm. Soc. 80 (11) 1997, pp 2844-2852	<input type="checkbox"/>
		M. N. KAMALASANAN, N. D. KUMAR, AND S. CHANDRA, Structural, optical, and dielectric properties of sol-gel derived SrTiO ₃ thin films, J. Appl. Phys. 74 (1), July 1993, pp 679-686	<input type="checkbox"/>
		J. P. MARIA, K. CHEEK, S. STREIFFER, S. H. KIM, G. DUNN AND A. KINGON, Lead Zirconate Titanate Thin Films on Base-Metal Foils: An Approach for Embedded High-Permittivity Passive Components, J. Am. Ceram. Soc. Volume 84, Number 10, (2001), pp 2436-2438	<input type="checkbox"/>
		M. H. FREY AND D. A. PAYNE, Grain-size effect on structure and phase transformations for barium titanate, Physical Review B, Volume 54, Number 5, 1 August 1996, pp 3158-3168	<input type="checkbox"/>
		E. DIEN, J. B. BRIOT, M. LEJEUNE AND A. SMITH, Relationship Between Processing and Electrical Behavior of BST Films Deposited by Spin Coating, Journal of the European Ceramic Society, Volume 19, (1999), pp 1349-1352	<input type="checkbox"/>
		D. M. TAHAN, A. SAFARI AND L. C. KLEIN, Preparation and Characterization of Ba _x Sr _{1-x} TiO ₃ Thin Films by a Sol-Gel Technique, J. Am. Ceram. Soc., Volume 79, Number 6, (1996), pp 1593-1598	<input type="checkbox"/>

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Application Number	10/621,796
Filing Date	July 17, 2003
First Named Inventor	William J. Borland
Art Unit	1775
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Attorney Docket Number	EL0513 US NA

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		R. W. SCHWARTZ, P. G. CLEM, J. A. VOIGT, E. R. BYHOFF, M. VAN STRY, T. J. HEADLEY AND N. A. MISSERT, Control of Microstructure and Orientation in Solution-Deposited BaTiO ₃ and SrTiO ₃ Thin Films, J. Am. Ceram. Soc., Volume 82, Number 9, (1999), pp 2359-2367	<input type="checkbox"/>
		M. LOSURDO, P. CAPEZZUTO, G. BRUNO, G. PERNA AND V. CAPOZZI, N ₂ -H ₂ remote plasma nitridation for GaAs surface passivation, Applied Physics Letters, Volume 81, Number 1, 1 July 2002, pp 16-18	<input type="checkbox"/>
		M.N. KAMALASANAN, N. DEEPAK KUMAR AND SUBHAS CHANDRA, Structural and microstructural evolution of barium titanate thin films deposited by the sol-gel process, J. Appl. Phys. 76 (8), 15 October 1994, pp 4603-4609	<input type="checkbox"/>
		N. DEEPAK KUMAR, M.N. KAMALASANAN AND SUBHAS CHANDRA, Metalorganic chemical vapor deposition technique for growing c-axis oriented ZnO thin films in atmospheric pressure air, Appl. Phys. Lett. 65 (11), 12 September 1994, pp 1373-1375	<input type="checkbox"/>
		J. T. DAWLEY AND P. G. CLEM, Dielectric properties of random and <100> oriented SrTiO ₃ and (Ba,Sr)TiO ₃ thin films fabricated on <100> nickel tapes, Applied Physics Letters, Volume 81, Number 16, 14 October 2002, pp 3028-3030	<input type="checkbox"/>
		G. ARLT, D. HENNINGS AND G. DE WITH, Dielectric properties of fine-grained barium titanate ceramics, J. Appl. Phys. 58 (4), 15 August 1985, pp 1619-1625	<input type="checkbox"/>

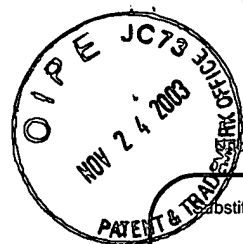
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Complete If Known	
				Application Number	10/621,796
				Filing Date	July 17, 2003
				First Named Inventor	William J. Borland
				Art Unit	1775
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Sheet	5	of	5	Attorney Docket Number	EL0513 US NA

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		ANGUS I. KINGON, TAEYUN KIM, JON-PAUL MARIA, and ROBERT CROSWELL, Integration of Thin Film Capacitors into Polymer-Based Wiring Boards or MCM-Ls, NC State University, Department of Materials Science and Engineering. 6/13/2002	<input type="checkbox"/>
		ANGUS I. KINGON, TAEYUN KIM, PAULA VILARINHO, JON-PAUL MARIA, AND ROBERT CROSWELL, Thin Film Capacitors Embedded into High Density Printed Circuit Boards, NC State University, Department of Materials Science and Engineering, 10/10/01	<input type="checkbox"/>
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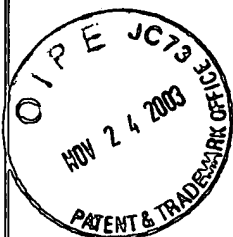
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